

Alternative Fuels & Related Opportunities: Fuel and Vehicle Changes

Does not include alternative forms of transportation

Knoxville City Government Actions	Status	Benefits & Costs
Diesel Fleet		
1. Use B20 in all diesel equipment	Done!	- CO2 reductions in 2006: 1,439 tons (city + KAT) - Basis - 15% life-cycle reduction using B20 - Petroleum use reduction of ~173,000 gallons/year - Need data from city on cost/cost savings of this (not just capital)
2. Use higher blends during warmer months - B40 during 3 summer months	To be reviewed	- potential 1/4 further increase in CO2 & petro. use reductions - need to evaluate cost difference
Gasoline Fleet		
1. Use E10 in all gasoline vehicles - Look to purchase from Mascoma	To be reviewed --->	- 2% reduction in GHG emissions and petroleum use - should be no cost difference - using cellulosic ethanol will increase that to 6% reduction in GHGs
2. Move to using E85 in as many vehicles as possible - Look to purchase from Mascoma	To be reviewed --->	- 17% reduction in GH emissions; 85% reduction in petroleum use - need to evaluate the potential cost difference - should see tailpipe reductions in all localized pollutants; LC will show wins and loses - using cellulosic ethanol will increase that to a 64% reduction in GHGs - cellulosic use will increase local pollution reductions and overall energy efficiency
3. Weigh the pros and cons of using CNG or LPG in certain city vehicles	Needs more info	- Overly needs to review further and get new data (e.g., costs, emissions benefits) - usually, can find fed. or NP grants to seek for funding assistance
Other Suggestions		
1. Anti-idling campaign in all city or city-oversight (e.g., contractors) vehicles		
2. Incorporate fuel economy and emissions (localized and CO2) criteria into the vehicle purchasing guidelines for the city		
3. Re-evaluate transport need in many city vehicles; look to NEVs, more fuel efficient LD vehicles		

Knoxville City-Wide Actions	Status	Benefits
Diesel Fleets		
1. Get B20 in use by "starter" fleets	Done!	CO2 reductions in 2006: 939 tons (5 fleets)
2. Get B20 used in more vehicles city-wide	ETCFC works on	
3. Help promote public stations making B20 available	ETCFC works on	Just got a call from BreadBox owner today wanting advice on moving forward on B20 and E85
4. Consider city-wide mandate of B2/B5, or supporting state-wide mandate		OR moving to B2 now and expect B5 soon; MN has been B2 state-wide for 2 years
Gasoline Fleets		
1. Promote the use of E10 and E85 locally	ETCFC works on	
2. Help promote public stations making E85 available	ETCFC works on	
3. Consider city-wide mandate of E10, or supporting state-wide mandate		MO moves to state-wide on 1/1/08; OR moves to E10 before 1/1/08
4. Work to install public CNG/LPG stations to help community make transition (local users and travelers)		- Public CNG stations have cropped up in Asheville and Birmingham, two regional destinations from Knoxville; looking at state or federal funding for putting in such a station could be a connection to allowing those who choose CNG the ability to drive their vehicles here and refuel here, creating emissions reductions
Other Suggestions		
1. Area-wide campaign for greater use of higher efficiency vehicles and alt fuels/AFVs		